



Name: _____

Mr. Tiénou-Gustafson & Mr. Biellemeier

Geometry, Period _____

Due the day before the Interim... **GO HARD!!!**

HW 72 - Binomials & Quadratics

**Geometry
Homework**Multiply the following expressions and write in standard form $y = ax^2 + bx + c$.

Set 1

FOIL
first + inside + last + outside

1. $(x+2)(x+5)$

$$(x \cdot x) + (x \cdot 5) + (x \cdot 2) + (2 \cdot 5)$$
$$x^2 + 5x + 2x + 10 \rightarrow x^2 + 7x + 10$$

like terms!

2. $(x+3)(x+5)$

3. $(x+7)(x+2)$

4. $(x+10)(x+1)$

5. $(x+3)(x-4)$

6. $(x-5)(x+4)$

7. $(x-7)(x+8)$

8. $(x+3)(x-2)$

9. $(x+2)(x-2)$

10. $(x-17)(x+17)$

11. $(x-6)(x-3)$

12. $(x-4)(x-1)$

Set 2: Take the information given to create a quadratic equation:

Hint: ⚡ This is the same problem as #13!

13. Solutions: -3 and -5

$$\begin{array}{r} x = -3 \\ +3 \quad +3 \\ \hline x+3=0 \end{array}$$

$$\begin{array}{r} x = -5 \\ +5 \quad +5 \\ \hline x+5=0 \end{array}$$

FOIL
 $(x+3)(x+5)=0$

17. Solution set: $\{-3, -5\}$

14. Solutions: -4 and -8

18. Solution set: $\{-2, -3\}$

15. Solutions: -13 and -13

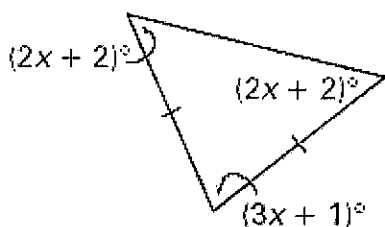
19. Solution set: $\{-11, -9\}$

16. Solutions: -10 and 5

20. Solution set: $\{2, -3\}$

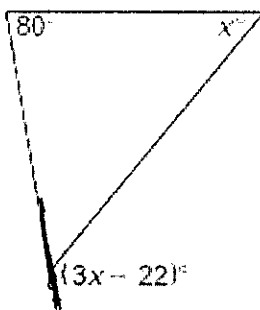
Set 3: INTERIM REVIEW! Think!! Struggle!!!

1) Solve for x .



$$(2x+2) + (2x+2) + (3x+1) = 180$$

2) Solve for x .

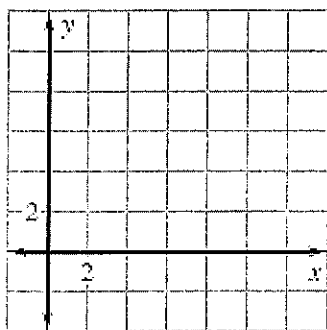


3) What is the value of b in the expression below:

a. $(x^b)^2 = x^{46}$

~~b. $(x^b)^2 = x^{80}$~~

4a. Graph the triangle with vertices $A(1, 2)$, $B(2, -2)$, and $C(5, 4)$.



4b) What is the equation of \overline{AC} ?

4c) What is the midpoint of \overline{BC} ?

5) Simplify:

$$\frac{12(g^2h)^4}{(4g^5h^0)^3} = \frac{12g^8h^4}{64g^{15}}$$